

Listing and Amendments to the Claims

This listing of claims will replace the claims that were published in the PCT Application:

1. (currently amended) Switched-mode power supply having a transformer (T_1), which has a primary winding (W_1) and at least one secondary winding (W_2 — W_6), having a switching transistor (Q_1) in series with the primary winding, having a driver stage (D_R) for controlling the switching transistor (Q_1), and having a control circuit for controlling an output voltage (U_3 — U_5), with the control circuit containing an oscillator (Θ) which can be adjusted via a connection (4), characterized in that, wherein the connection (4) is coupled to a secondary winding (W_6) in order to determine the switch-on time of the switching transistor (Q_1) by means of oscillation which occurs on the second winding (W_6).
2. (currently amended) Switched-mode power supply according to Claim 1, characterized in that wherein a switching stage (T_1 , T_2) is arranged between the connection (4) and the secondary winding (W_6) and passes on a supply voltage (V_{Ref}) to the connection (4) when a sudden voltage change occurs on the secondary winding (W_6) at the time of an oscillation after a demagnetization phase of the transformer (T_1).
3. (currently amended) Switched-mode power supply according to Claim 2, characterized in that wherein the secondary winding (W_6) produces a positive voltage pulse, which switches on the switching stage (T_1 , T_2), when an oscillation occurs.
4. (currently amended) Switched-mode power supply according to Claim 2 or 3, characterized in that, wherein a voltage divider (R_6 , T_7 , R_8) is arranged between the switching stage (T_1 , T_2) and the secondary winding (W_6) in order to set a threshold value for the switching stage (T_1 , T_2).

5. (currently amended) Switched-mode power supply according to Claim 2, 3 or 4, characterized in that wherein a capacitor (C_4) is arranged between the switching stage (T_1, T_2) and the secondary winding (W_6) in order to limit a voltage pulse.
6. (currently amended) Switched-mode power supply according to ~~one of the preceding claims, characterized in that~~ Claim 1, wherein the switching stage (T_1, T_2) is coupled to an output (θ) of the driver states (DR) in order to block the switching stage (T_1, T_2) when the switching transistor (Q_1) is switched on.
7. (currently amended) Switched-mode power supply according to Claim 6, characterized in that wherein the switching stage (T_1, T_2) is coupled via a resistor (R_5) and a diode (D_1) to the output (θ) of the driver states (DR).
8. (currently amended) Switched-mode power supply according to ~~one of the preceding Claims 4 to 7, characterized in that~~ Claim 4, wherein the switching stage (T_1, T_2) has a first switch (T_1), which is connected between the supply voltage (V_{Ref}) and the connection (4) and is switched on by a second switch (T_1) when the voltage on the secondary winding (W_6) exceeds the threshold value predetermined by the voltage divider ($T_6—R_8$).
9. (currently amended) Switched-mode power supply according to ~~one of the preceding claims, characterized in that~~ Claim 1, wherein the secondary winding is an auxiliary winding (W_6) on the primary side of the transformer (TR).
10. (currently amended) Switched-mode power supply according to ~~one of the preceding claims, characterized in that~~ Claim 1, wherein the control circuit and the oscillator (O) are arranged in an integrated circuit (IC_1), in that the oscillator (O) is controlled by an external circuit (R_1, C_1) with a sawtooth voltage via the connection (4), and in that a logic circuit (LO) in the integrated circuit (IC_1) in each case alternately uses a sawtooth pulse (SZ_1) from the sawtooth voltage to limit the time for which the switch transistor (Q_1) is switched on and a sawtooth pulse (SZ_2, SZ_2') from the sawtooth voltage in order to determine the phase in which the switching transistor (Q_1) is switched off.

11. (currently amended) Switched-mode power supply according to Claim 10,
characterized in that wherein the supply voltage (V_{Ref}) is a reference voltage
(V_{Ref}) which is produced via an output (9) of the integrated circuit.